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First trimester miscarriage: patient care considerations for the dental team

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When communicating with patients who have recently miscarried, the dental team has a role to play in ensuring that language is supportive and appropriate for the individual patient's needs. By **Olivia Barratt**,¹ **Rachel Lee**² and **Claire Curtin**³

Abstract

First trimester miscarriage is common, occurring in approximately 6.4–12.0% of pregnancies. Women who experience first trimester miscarriage will often have no other significant health conditions and the healthcare professional they most frequently visit could be their dentist or dental care professional. For this reason, it is important that the dental team is aware of the management of first trimester miscarriage in order to allow for a better understanding of the patient's experience and situation. The choice of language used by healthcare professionals with patients who are grieving is also important to ensure effective and open communication.

This article aims to provide the dental team with knowledge of first trimester miscarriage, how the effects of this can be relevant within the dental setting, and how to communicate effectively and appropriately with patients who have experienced this traumatic event.

Introduction

Pregnancy loss is a sensitive topic that is not often discussed during dental consultations and it may be surprising to find it the subject of an article in the *British Dental Journal*. However, pregnancy loss sadly happens more often than many realise.¹ First trimester miscarriage is common, occurring in approximately 6.4–12.0% of pregnancies.² Despite this, there is a distinct lack of public awareness surrounding miscarriage.

In 2015, a large study of 1,084 adults in the United States found that the public incorrectly believed that miscarriage occurs in fewer than 5% of pregnancies.³ When communicating with patients who have recently miscarried, the dental team has a role to play in ensuring that language is supportive and appropriate for the individual patient's needs. This article will focus on providing a broad overview of first trimester miscarriage to help dental teams better understand their patients' experiences.

Miscarriage

The Royal College of Obstetricians and Gynaecologists define miscarriage as 'the spontaneous loss of pregnancy before the fetus reaches viability' and 'includes all pregnancy losses from the time of conception until 24 weeks of gestation'.⁴ A pregnancy lost between 24 weeks and the onset of labour is defined as an intrauterine death. A stillbirth is the loss of a baby which is not diagnosed until the point of labour.⁵ Stillbirth and intrauterine deaths are rare and account for one in every 250 births in England.⁶ See Table 1 for a list of useful definitions. Approximately 80% of pregnancy loss occurs in the first trimester, with the risk of loss significantly decreasing after the first 12 weeks.⁷ Data demonstrate that 125,000 miscarriages occur every year in the UK, 42,000 cases of which will require inpatient management.⁸ Recurrent miscarriage is defined as a patient who has experienced three or more consecutive miscarriages in her life and occurs in approximately 1–2% of women.⁹

Up until the 1960s, miscarriage was often referred to as spontaneous

¹DCT 2 in Restorative Dentistry, University Dental Hospital, Cardiff & Vale University Health Board, Heath Park, Cardiff, CF14 4XY, UK; ²ST5 Obstetrics and Gynaecology, Welsh Clinical Leadership Fellow, Health Education and Improvement Wales, UK; ³Consultant in Acute & Special Care Dentistry, University Dental Hospital, Cardiff & Vale University Health Board, Heath Park, Cardiff, CF14 4XY, UK. *Correspondence to: Olivia Barratt Email address: olivia.barratt123@gmail.com

abortion. The term 'abortion' is now associated with the elective termination of a pregnancy; therefore, patients who have experienced a miscarriage may, understandably, not be comfortable with its use in relation to their own situation.¹⁰ There has been a conscious effort to move towards using the term 'miscarriage', with additional descriptive words such as complete, missed or late used to classify the diagnosis further. The term 'abortion' is no longer acceptable or appropriate language in this situation.¹¹

Miscarriage can be a significant and traumatic life event for many women, with 40% reporting feelings of loss, guilt and shame.³ The National Health Service does not routinely offer counselling to patients who have experienced pregnancy loss.¹² Most first trimester miscarriages occur in young, healthy women who often have no regular contact with healthcare practitioners apart from their dental team. They may have attended the same practice for a number of years, possibly even since childhood, and so may feel comfortable confiding in a dental team member whom they have met multiple times before. On the other hand, other women may be irregular attenders and have initially sought dental treatment at the start of their pregnancy. This may be due to their exemption status from NHS dental fees or that routine midwifery care signposts pregnant women to seek a dental examination.

Pregnant women are exempt from NHS charges for the duration of their pregnancy and for 12 months after the birth of the baby. Women who subsequently miscarry may be concerned that they no longer qualify for free-of-charge dental treatment. If the pregnancy loss occurs after 24 weeks, a woman will still be entitled to free dental treatment for 12 months following the date of her loss. If the woman miscarries before 24 weeks, she will not be entitled to free dental treatment afterwards. However, any treatment started before the miscarriage (during the pregnancy) will be received for free. She would then not qualify for any other free treatment for the following 12 months.¹³

Choosing the appropriate language to explain this to the patient in a supportive way is difficult. Having a basic and broad understanding of what patients have been through would allow a better appreciation of their situation. Education of all members of the dental team is a useful starting point to raise awareness and could be beneficial in supporting patients who have experienced a loss.

Symptoms of miscarriage

Symptoms of miscarriage vary widely and patients can be asymptomatic. Others will

Table 1 Useful definitions^{4,40,41,42}

Term	Description
Miscarriage	The involuntary, spontaneous loss of a pregnancy before 24 completed weeks' gestation
Intrauterine death	A pregnancy lost between 24 weeks and the onset of labour
Stillbirth	The loss of a baby which is not diagnosed until the point of labour
Embryo	A fertilised human oocyte by a human sperm which has not yet reached the eighth week of development
Fetus	Develops from an embryo after the ninth week of development
Fetal viability	Ability of the fetus to survive outside the uterus

experience one or more of the following symptoms:¹⁴

- Vaginal bleeding or spotting
- Abdominal pain
- Nausea
- Vomiting
- Discharge of fluid or tissue from the vagina
- Loss of previous pregnancy signs, such as breast tenderness and nausea.

It is important to note that these symptoms, at any point in pregnancy, do not automatically lead to a diagnosis of a loss. Light bleeding in the first trimester with no passing of clots or tissue would be termed a threatened miscarriage, until an ultrasound scan can confirm an alternative diagnosis. Over 50% of women with bleeding in the first trimester go on to deliver at term.¹⁵ Other common causes of bleeding in the first 12 weeks are implantation bleeding and subchorionic haematoma.¹⁶

Diagnosis and management of first trimester miscarriage

Women with symptoms of miscarriage before 13 weeks' gestation will be referred by their general medical practitioner (GMP) or community midwife to their local hospital early pregnancy assessment unit (EPAU).¹⁷ They could also be directed to EPAU by A&E medical staff. From around 13 weeks' gestation, the symptomatic patient would be referred to the emergency gynaecology unit in the hospital.¹⁸

Transvaginal or transabdominal ultrasound is a useful diagnostic tool if miscarriage is suspected.¹⁹ Transvaginal ultrasound is the most accurate method of determining normal fetal development early in the first trimester, when transabdominal scans are less reliable. If the first transvaginal ultrasound is inconclusive or indicates a problem, guidelines dictate that the patient should receive a confirmatory ultrasound scan seven days later before a diagnosis is made and interventions are considered.²⁰ Serum beta human gonadotropin hormone levels may also be assessed to aid

diagnosis, particularly in early pregnancy.²¹

Unless clinically urgent, ultrasound scanning is not always possible immediately and patients may have to wait a number of days before their appointment. This delay can be a difficult and anxious time for patients and their families. Ten percent of women who miscarry have unstable vital signs or infected tissue and may require more immediate acute care.²⁰

A complete miscarriage often does not require an ultrasound scan and will not need treatment. Other types of miscarriage such as delayed and missed may require active treatment. The types of miscarriage are outlined in Table 2.

In general, the management options given to women are as follows:

- Expectant management:
 - ◆ This involves waiting for the natural process to occur over 7–14 days
 - ◆ Available to women who have miscarried up to 13 weeks' gestation
 - ◆ Not suitable if there is a risk of infection, haemorrhage or previous traumatic miscarriage¹⁹
 - ◆ Success rates vary from 39% to 78.6%^{22,23}
 - ◆ If the uterus fails to empty after 7–14 days, other management options must be considered.
- Medical management:
 - ◆ This involves the use of vaginal or sublingual misoprostol, mifepristone and vaginal gemeprost to initiate expulsion of tissue
 - ◆ Patients should be counselled on potential severe blood loss, nausea, vomiting, diarrhoea and extreme pain
 - ◆ Antiemetics and pain control are required
 - ◆ Eighty-one percent chance of being effective.²⁴
- Surgical intervention:
 - ◆ Surgical removal of tissue can be completed under local anaesthetic, sedation or general anaesthesia
 - ◆ Rare for further intervention to be required

Table 2 Types of miscarriage^{29,43,44}

Type	Description	Symptoms
Complete or spontaneous miscarriage ⁴³	Complete expulsion of tissue from the uterus	Heavy bleeding, tissue loss, abdominal pain, potential hospital admission required due to blood loss
Missed/silent miscarriage	Pregnancy found to be non-viable on ultrasound, often with no previous concerning symptoms. No tissue is lost from the uterus, hence the term missed or silent	Patient may be asymptomatic with a positive pregnancy test
Delayed miscarriage (includes previously used and now abandoned terms such as blighted ovum/anembryonic pregnancies and missed abortions) ⁴⁴	Embryo is lost at an early stage. However, the gestational sac continues to grow Pregnancy found to be non-viable on ultrasound, often with no previous concerning symptoms	Patient may be asymptomatic with a positive pregnancy test
Late miscarriage	Pregnancy loss after 13 weeks' gestation	Bleeding, abdominal cramps, waters breaking, patient may also be asymptomatic with a positive pregnancy test, hospital admission likely with potential labour induction ³⁰

- ◆ One hundred percent chance of being effective.²²

With expectant and medical management, there is always the risk of incomplete tissue loss, after which further medical management or surgical intervention may be necessary. Notably, women who have miscarried may still have a positive urine pregnancy test for a number of weeks afterwards. This is due to remaining circulating levels of beta human gonadotropin hormone. Patients are advised to contact the EPAU if they have a positive pregnancy test three weeks after tissue loss.

Causes of first trimester miscarriage

There is little definitive evidence available about the causes of first trimester miscarriage. The majority of cases are believed to occur due to genetic abnormalities, with 70% of sporadic first trimester miscarriages attributed to chromosomal abnormalities of the embryo or fetus.²⁵ Sadly, most women will never learn the exact reason for their loss and up to 60% of recurrent miscarriages go unexplained.²⁶

Certain maternal factors are associated with an increased risk of first trimester miscarriage. Hormonal irregularities can cause miscarriage; for example, if the mother does not produce sufficient levels of luteinising hormone, as seen in polycystic ovary syndrome.²⁷

Women with antiphospholipid antibody syndrome, sometimes called 'sticky blood syndrome', are also at higher risk of pregnancy complications, including miscarriage.²⁸ These patients will often receive anticoagulation therapy from the first trimester of their pregnancy in a bid to prevent clots forming in the placenta.²⁹

Pregnant women are more susceptible to

infection, and symptoms such as fever may increase their risk of miscarriage. Moreover, anatomical causes such as a weak cervix, fibroids and the shape of the uterus may all be contributing factors in pregnancy loss (Box 1).

Effects of first trimester miscarriage and dental considerations

Patients are not routinely offered follow-up appointments after miscarrying in the first trimester. There is an argument to suggest that their next healthcare contact could be with their dentist or other dental care professional. For this reason, it is vital that the dental team have some basic knowledge of the management of first trimester miscarriage in order to understand and appreciate the situation. It is not the place of the dental team to offer medical advice outside of their scope of practice; however, an awareness of first trimester miscarriage, and the ability to communicate sensitively and effectively, may be of great benefit to patients during what can be a challenging time.

Pregnancy loss can be a considerably difficult time for women and their families. Research shows that 20% of women who experience the loss of a baby will develop clinical depression.³¹ Anxiety and mental health problems last for an average of 33 months.³² It is appropriate to delay elective dental treatment until the patient feels ready, but other patients may prefer that treatment is carried out as normal, possibly to provide a small distraction from their loss. Informed discussion and patient-led planning are of paramount importance.

It is important not to neglect the woman's partner and their feelings after a first trimester miscarriage. While male partners do experience symptoms of grief following a loss, the evidence suggests that their symptoms are often less

profound than those of the woman.³⁴ Despite the literature, it is important to recognise that this may not always be the case. Some men may struggle significantly with the situation and the emotions surrounding it. Indeed, after a partner's pregnancy loss, men are more likely than women to turn to compensatory factors such as increased alcohol intake.³³

The literature and discussion surrounding pregnancy loss is centred around a heterosexual framework.³⁴ It is important to recognise the effects of pregnancy loss on those who identify as LGBTQ, where assisted conception techniques (such as surrogacy, donor conception and artificial insemination) are more common. Recent data report that lesbian couples are one of the fastest growing groups within the maternity services.³⁵ These patients may find a

Box 1 Risk factors for miscarriage

- Maternal age at conception
- Nocturnal night working patterns
- Lifting >20 kg daily
- Maternal weight
- Regular or high alcohol consumption
- Assisted conception
- Infertility
- Polycystic ovary disease
- Infection in pregnancy
- Multiple pregnancies
- Stress
- Uncontrolled diabetes
- Thyroid disorders
- General anaesthesia during early pregnancy

Information derived from:^{44,45,46,47,48}

loss particularly difficult due to the additional complexities surrounding the pregnancy, where significant planning and financial costs are often required.

Advice for dental professionals

If a patient tells you that she has experienced a first trimester miscarriage, it can be hard to find the right words to respond. Worries about upsetting the patient further may lead to some feeling that it is best to say nothing at all. However, not acknowledging the event could create the impression that what happened was not important. If a patient has mentioned their pregnancy loss to you, then it is important to remember that attempts to immediately change the subject may seem unsympathetic, unless the patient makes it clear she does not wish to dwell.

When speaking to the patient about her loss, consider language and terms very carefully. Use terminology that the patient chooses to use when speaking to you. For example, if she says the term 'baby loss', repeat this phrase if appropriate in your next sentence and do not change it to 'pregnancy' or 'fetal loss'. Be guided by the way the patient describes the situation. Do not try and cheer the patient up or lighten the mood. Although reassurances and focusing on positives may seem appropriate, they may not help the grieving woman. Instead, show understanding and acknowledge the distressing time she may be going through.

A useful phrase in this situation could be: 'That is awful, I am so sorry to hear that.'

One should note that each patient will respond differently to their loss. Some women of certain faiths and cultures may not see miscarriage as negatively as others. For some, it is accepted as an act of God, for example. Perception of the loss will be guided by what the pregnancy meant to the individual. If the woman has a history of previous miscarriages or subfertility, then this diagnosis could be more difficult to bear. Assess each woman's own feelings towards her situation and respond accordingly. Active listening skills are key with good eye contact to ensure the woman knows her grief is understood and acknowledged.

It should not be assumed that the earlier the loss, the lesser the sense of grief. Research shows that there is no significant difference in the emotional responses between miscarriage, intrauterine death and stillbirth.³⁶

If the patient is having to wait for diagnostic ultrasound scanning, try and convey a sense of understanding that this is likely to be a time of immense uncertainty not knowing if the pregnancy remains viable.

A valuable resource is The Miscarriage Association website (www.miscarriageassociation.org.uk). This provides

information for both patients and their families, along with online forums and a helpline offering pregnancy loss support and guidance which may be helpful.³⁷ The website also advertises opportunities for women to take part in various qualitative and quantitative research projects regarding first trimester miscarriage. Being able to have a role in these studies may empower the woman with a sense that she is contributing to future developments and research which could help prevent future losses for herself and others.

Recording a miscarriage in the patient's dental notes would be beneficial. From a clinical perspective, it is important to record how the loss was managed and if there was any general anaesthesia or oral sedation administered. Moreover, it also acts as an effective reminder to the clinician to enquire how the patient is feeling, perhaps at their biannual or annual check-up. In raising the topic with the patient, a clinician may worry this could upset the patient. However, research shows that women report a silence surrounding miscarriage leading to feelings of isolation and loneliness.³⁸ Enquiring how the patient is with an open phrase such as: 'And how are you keeping after everything that happened six months ago?' would allow the patient to respond and direct the conversation however she wishes and shows her that people are thinking of her even six months after the event. Asking this question may reveal that the patient is struggling and that potential referral to their GMP is appropriate. Having the contact number for The Miscarriage Association's pregnancy loss support helpline readily available to give to the patient would also be useful.

For members of the dental team who wish to improve their communication skills in this area, The Miscarriage Association provides a free online learning resource for medical professionals to learn how to communicate more effectively with those who have experienced pregnancy loss. The tool takes approximately an hour to complete and is easily accessible via their website.³⁹

Conclusion

First trimester miscarriage is common and not frequently discussed in a dental setting. The dental team has frequent contact with their patients and their role in supporting those in these circumstances should not be overlooked. This article gives dentists and dental care professionals a broad understanding of miscarriage in the first trimester to allow better, more informed communication between the patient and the dental team.

If you have been affected by any of the issues raised in this article, the following organisations may be able to provide help and advice:

■ The Miscarriage Association: helpline

open Monday to Friday, 9 am to 4 pm, on 01924200799. E-mail: info@miscarriageassociation.org.uk

■ Sands – stillbirth and neonatal death charity: helpline available on 08081643332. E-mail: helpline@sands.org.uk

■ Petals (Pregnancy Expectations Trauma and Loss Society): <https://petalscharity.org/>.

Conflict of interest

The authors have no conflicts of interest to declare for this article.

References

1. Jurkovic D, Overton C, Bender-Atik R. Diagnosis and management of first trimester miscarriage. *BMJ* 2013; DOI: 10.1136/bmj.f3676.
2. Linnakaari R, Helle N, Mentula M *et al*. Trends in the incidence, rate and treatment of miscarriage – nationwide register-study in Finland, 1998–2016. *Hum Reprod* 2019; **34**: 2120–2128.
3. Bardos J, Hercz D, Friedenthal J, Missmer S, Williams Z. A National Survey on Public Perceptions of Miscarriage. *Obstet Gynecol* 2015; **125**: 1313–1320.
4. Royal College of Obstetricians & Gynaecologists. The Investigation and Treatment of Couples with Recurrent Firsttrimester and Second-trimester Miscarriage. 2011. Available at https://www.rcog.org.uk/globalassets/documents/guidelines/gtg_17.pdf (accessed April 2020).
5. Royal College of Obstetricians & Gynaecologists. Late Intrauterine Fetal Death and Stillbirth. 2010. Available at https://www.rcog.org.uk/globalassets/documents/guidelines/gtg_55.pdf (accessed April 2020).
6. Office for National Statistics. Child and infant mortality in England and Wales: 2018. 2020. Available at <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/childhoodinfantandperinatalmortalityinenglandandwales/2018> (accessed April 2020).
7. National Childbirth Trust. Miscarriage: your questions answered. 2020. Available at <https://www.nct.org.uk/pregnancy/miscarriage/miscarriage-your-questions-answered> (accessed April 2020).
8. Knez J, Day A, Jurkovic D. Ultrasound imaging in the management of bleeding and pain in early pregnancy. *Best Pract Res Clin Obstet Gynaecol* 2014; **28**: 621–636.
9. Ford H, Schust D. Recurrent Pregnancy Loss: Etiology, Diagnosis and Therapy. *Rev Obstet Gynecol* 2009; **2**: 76–83.
10. Hutchon D J. Understanding Miscarriage or Insensitive Abortion: Time for More Defined Terminology? *Am J Obstet Gynecol* 1998; **179**:

- 397–398.
11. Farquharson R, Jauniaux E, Exalto N. Updated and revised nomenclature for description of early pregnancy events. *Hum Reprod* 2005; **20**: 3008–3011.
12. Norton W, Furber L. An exploration of how women in the UK perceive the provision of care received in an early pregnancy assessment unit: an interpretive phenomenological analysis. *BMJ Open* 2018; DOI: 10.1136/bmjopen-2018-023579.
13. NHS Business Services Authority. Can I still claim free NHS dental treatment if I've had a miscarriage/stillborn birth? 2020. Available online at <https://nhsbsa-live.powerappsportals.com/knowledgebase/article/KA-02142/en-us> (accessed September 2020).
14. Sapra K, Joseph K, Galea S *et al*. Signs and Symptoms of Early Pregnancy Loss. *Reprod Sci* 2016; **24**: 502–513.
15. Snell B J. Assessment and Management of Bleeding in the First Trimester of Pregnancy. *J Midwifery Womens Health* 2009; **54**: 483–491.
16. Matthews M. Evaluation and Management of First-Trimester Bleeding. *Postgrad Obstet Gynecol* 2012; **32**: 1–7.
17. Moore J. Early pregnancy units and problems in early pregnancy. *Curr Obstet Gynecol* 2006; **16**: 327–332.
18. Ankum, Willem M. Medical Management of First Trimester Miscarriage Did Not Improve Outcome, Compared to Expectant Management. *Evid Based Obstet Gynecol* 2000; **2**: 44.
19. NICE. Ectopic Pregnancy and Miscarriage: Diagnosis and Initial Management. 2019. Available at <https://www.nice.org.uk/guidance/ng126/resources/ectopic-pregnancy-and-miscarriage-diagnosis-and-initial-management-pdf-66141662244037> (accessed April 2020).
20. Webster, Katie *et al*. Ectopic Pregnancy and Miscarriage: Diagnosis and Initial Management: Summary of Updated NICE Guidance. *BMJ* 2019; DOI: 10.1136/bmj.l6283.
21. Ballagh S A, Harris H A, Damasio K. Is curettage needed for an uncomplicated incomplete abortion? *Am J Obstet Gynecol* 1998; **179**: 1279–1282.
22. Sotiriadis A, Makrydimas G, Papatheodorou S, Ioannidis J P. Expectant, Medical, or Surgical Management of First-Trimester Miscarriage: A Meta-Analysis. *Obstet Gynecol* 2005; **105**(5 Pt 1): 1104–1113.
23. Shelley J, Healey D, Grover S. A randomised trial of surgical, medical and expectant management of first trimester spontaneous miscarriage. *Aust N Z J Obstet Gynaecol* 2005; **45**: 122–127.
24. Cubo A M, Soto Z M, Haro-Pérez A, Hernández M E H, Doyague M J, Sayagués J M. Medical versus surgical treatment of first trimester spontaneous abortion: A cost-minimization analysis. *PLoS One* 2019; DOI: 10.1371/journal.pone.0210449.
25. Hogge W A, Byrnes A L, Lanasa M C, Surti U. The clinical use of karyotyping spontaneous abortions. *Am J Obstet Gynecol* 2003; **189**: 397–400.
26. Bicking Kinsey C, Baptiste-Roberts K, Zhu J, Kjerulff K H. Effect of multiple previous miscarriages on health behaviours and health care utilization during subsequent pregnancy. *Womens Health Issues* 2015; **25**: 1550–1561.
27. Kamalanathan S, Sahoo J P, Sathyapalan T. Pregnancy in polycystic ovary syndrome. *Indian J Endocrinol Metab* 2013; **17**: 37–43.
28. Di Prima F A F, Valenti O, Hyseni E *et al*. Antiphospholipid Syndrome during pregnancy: the state of the art. *J Prenat Med* 2011; **5**: 41–53.
29. Cowchock S. Treatment of antiphospholipid syndrome in pregnancy. *Lupus* 1998; **7**(2-suppl): 95–97.
30. The Miscarriage Association. Why me? 2015. Available at <http://www.miscarriageassociation.org.uk/wp-content/uploads/2016/10/Why-Me.pdf> (accessed April 2020).
31. Nynas J, Narang P, Kolikonda M K, Lippmann S. Depression and Anxiety Following Early Pregnancy Loss: Recommendations for Primary Care Providers. *Prim Care Companion CNS Disord* 2015; DOI: 10.4088/PCC.14r01721.
32. Beutel M, Deckardt R, von Rad M, Weiner H. Grief and depression after miscarriage: their separation, antecedents, and course. *Psychosom Med* 1995; **57**: 517–526.
33. Due C, Chiarolli S, Riggs D W. The impact of pregnancy loss on men's health and wellbeing: a systematic review. *BMC Pregnancy Childbirth* 2017; **17**: 380.
34. Darwin Z, Greenfield M. Mothers and others: The invisibility of LGBTQ people in reproductive and infant psychology. *J Reprod Infant Psychol* 2019; **37**: 341–343.
35. Human Fertilisation & Embryology Authority. Fertility treatment 2017: Trends and figures. 2019. Available at <https://www.hfea.gov.uk/media/2894/fertility-treatment-2017-trends-and-figures-may-2019.pdf> (accessed April 2020).
36. Peppers L, Knapp R. Maternal reactions to involuntary fetal/infant death. *Psychiatry* 1980; **43**: 155–159.
37. The Miscarriage Association. The Miscarriage Association Forum. Available online at <https://www.miscarriageassociation.org.uk/>
- myBB/member.php (accessed April 2020).
38. Bellhouse C, Temple-Smith M J, Bilardi J E. “It’s just one of those things people don’t seem to talk about...” women’s experiences of social support following miscarriage: a qualitative study. *BMC Womens Health* 2018; **18**: 176.
39. The Miscarriage Association. Caring for women experiencing pregnancy loss: a new elearning resource. 2020. Available online at <https://www.miscarriageassociation.org.uk/information/for-health-professionals/e-learning/> (accessed April 2020).
40. Findlay J, Gear M, Illingworth P *et al*. Human embryo: a biological definition. *Hum Reprod* 2006; **22**: 905–911.
41. Medline Plus. *Merriam-Webster Medical Dictionary*. Springfield, MA: Merriam-Webster Incorporated, 2005.
42. Cahill D J. Managing Spontaneous First Trimester Miscarriage. *BMJ* 2001; DOI: 10.1136/bmj.322.7298.1315.
43. Allison J L, Sherwood R S, Schust D J. Management of first trimester pregnancy loss can be safely moved into the office. *Rev Obstet Gynecol* 2011; **4**: 5–14.
44. Sappenfield E, Jamieson D, Kourtis A. Pregnancy and Susceptibility to Infectious Diseases. *Infect Dis Obstet Gynecol* 2013; DOI: 10.1155/2013/752852.
45. Feodour Nilsson S, Andersen P K, Strandberg-Larsen K, Nybo Andersen A M. Risk factors for miscarriage from a prevention perspective: a nationwide follow-up study. *BJOG* 2014; **121**: 1375–1384.
46. Bhattacharya S. Modifiable risk factors for miscarriage identified. *Evid Based Nurs* 2015; **18**: 72.
47. Maconochie N, Doyle P, Prior S, Simmons R. Risk Factors for first trimester miscarriage – results from a UK population based case control study. *BJOG* 2007; **114**: 170–186.
48. Gracia C R, Sammel M D, Chittams J *et al*. Risk Factors for spontaneous abortion in early symptomatic first-trimester pregnancies. *Obstet Gynecol* 2005; **106**(5 Pt 1): 993–999.

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